Migration and labor market integration in Europe

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Abstract: The European labor market allows for the border-free mobility of workers across 31 countries that cover most of the continent's population. However, rates of migration across European countries remain considerably lower than interstate migration in the United States, and spatial variation in terms of unemployment or income levels is larger. We document patterns of migration in Europe, which include a sizable migration from east to west in the last twenty years. An analysis of worker-level microdata provides some evidence for an international convergence in wage rates and for modest static gains from migration. We conclude by discussing obstacles to migration that reduce the potential for further labor market integration in Europe.

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Migration and Labor Market Integration in Europe

David Dorn and Josef Zweimüller

The Treaty of Rome, signed in 1957 by Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany, envisioned the development of a common market with free movement of goods, capital, services and persons. Today, legal barriers to labor mobility across European countries have been dismantled: more than 460 million citizens of 31 European countries can choose to reside in any other partner country, they can work there without needing a work permit, and they are entitled to equal treatment with nationals in access to employment and public services.

However, the European labor market remains considerably less integrated and more heterogeneous than the US labor market, which comprises a population of 330 million across the 50 states. For example, consider the dispersion of unemployment rates. In 2019, national unemployment rates in European countries were as low as 2.0 percent in Czechia and 3.2 percent in Germany, but as high as 13.7 percent in Spain and 16.6 percent in Greece (Eurostat 2020a). By comparison, state-level unemployment rates within the United States ranged from 2.4 percent to 6.1 percent (Bureau of Labor Statistics 2019). The European labor market also has much lower levels of spatial mobility. The share of European citizens living in a different country than their country of birth was less than 5 percent in 2019

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(Eurostat 2020b), while the fraction of cross-state migrants in the US population has long been close to one-third (Molloy, Smith, and Wozniak 2011). However, whereas domestic mobility in the United States appears to be slowly declining, it is increasing in the European labor market.

The removal of restrictions to international migration has very large potential economic benefits, which may exceed the benefits of other integration measures such as free trade by an order of magnitude (Clemens 2011; Dustmann and Preston 2019). Nonetheless, European labor market integration remains a contentious policy issue. Skepticism about immigration is a signature issue of right-wing European populism (Margalit 2019; Guiso et al. 2020) and is also strongly correlated with general distrust towards the European Union (Jeannet 2017).

In this article, we discuss the past, present, and potential future of the European labor market. We begin by documenting patterns of labor mobility across European countries. We next ask whether and to what extent the labor markets of these countries have become more integrated over time. Finally, we discuss remaining obstacles for European labor market integration. Our primary focus is on migration between European countries: for surveys of the literature on overall immigration in Europe, useful starting points are Dustmann and Frattini (2011) and De La Rica, Glitz, and Ortega (2015).

Labor Market Integration in Europe

In the Treaty of Rome, the six founding members of the European Economic Community agreed on the free movement of citizens within those countries, thus extending to the entire economy the labor-mobility agreement for the coal and steel industries that had been introduced by the 1951 Treaty of Paris. The Schengen Agreement of 1985 further led to the fall of national border controls, which facilitated cross-border work.[1] However, despite a harmonization of visa policies, each country maintained the right to apply its own rules for the provision of work visas to citizens of countries that do not participate in the common market.

In successive enlargements, six additional Western European countries joined the European Economic Community (EEC): the United Kingdom, Ireland, and Denmark in 1973, Greece in 1981, and Portugal and Spain in 1986. In addition, East Germany was integrated into the bloc following the German unification in 1990. The 1992 Treaty of Maastricht established the European Union (EU), whose goal was a closer political integration among the EEC members, including the establishment of EU citizenship. In the same year, the twelve members of the EEC and the seven members of the European Free Trade Association (EFTA) signed an

[1] All but six of the countries that eventually participated in the common European labor market, also became part of the Schengen area. The United Kingdom and Ireland opted out of joining the Schengen agreement, while some of the newest members of the European market in southeastern Europe are obliged to join in the future.

agreement to expand the common market beyond the EEC/EU by forming the European Economic Area (EEA), which covered nearly all of Western Europe. The EU and EEA then expanded eastwards and added a further 13 countries from 2004 onwards.[2]

Thus, since its foundation, the common European Economic Area labor market grew from six countries with a population of 167 million in 1957 to 32 countries with a population of about 530 million in 2020. We will refer to these countries as "EEA countries," and include Switzerland in that group, which participates in the common market despite not being an EEA member, and the United Kingdom, which left the common market in 2021. Prior to "Brexit," which reduced the expanse of the European labor market for the first time, the common market included all countries on the European continent, except most of the successor countries of the USSR and of Yugoslavia, as well as Turkey, Albania, and some micro-states.

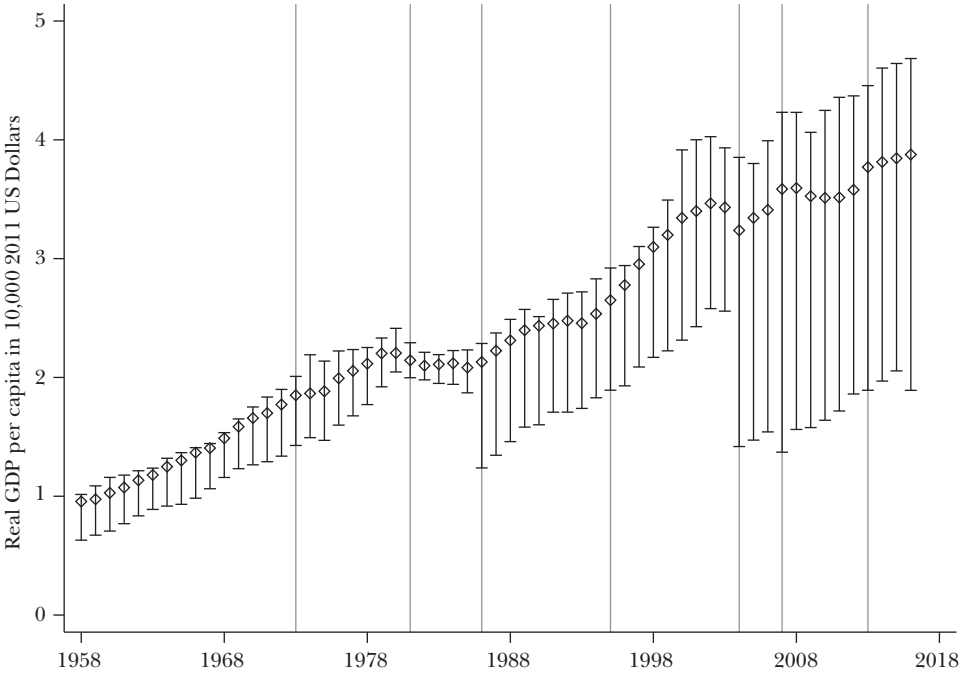
The changing membership in the European Economic Area had large implications for the dispersion of the material standard of living among member states. Figure 1 ranks the EEA population by the real per capita income of their country of residence and shows the difference between the EEA resident at the 5th versus the 95th percentile: In 1958, an Italian resident was at the 5th and a German at the 95th percentile; in 2016, a Romanian was at the 5th while someone from Holland was at the 95th percentile.[3] The figure indicates that per capita income differentials—indicated by the 95/5 percentile ratio—have increased over time. The 95/5 percentile ratio expanded from 1.19 to 1.85 with the accession of Spain and Portugal in 1986, and later jumped to 2.82 and 3.47 following the eastern enlargements of 2004 and 2007, respectively. For comparison, the 95/5 percentile ratio among US states was 1.86 in 2018, with New York and South Carolina being the states at the 95th and 5th percentiles, respectively.

The eastern enlargement of the European Union and the resulting sharp increase in income differentials within the common labor market created the potential for substantial migration from poorer to richer countries. Most older

[2]Depending on data availability, we will subsequently report statistics for the following country groups: "EU-15" comprises the twelve European countries that had already been members of the EEC by 1986 (Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom), plus three countries that joined the EEA in 1994 as members of EFTA and subsequently acceded to the European Union in 1995 (Austria, Finland, Sweden); "EFTA" comprises three EFTA members which joined the EEA in 1994 or 1995 (Iceland, Liechtenstein, and Norway), and one that rejected an accession to the EEA in a referendum but later joined the common market via bilateral treaties in 2005 (Switzerland); "EU-28" comprises the EU-15 plus 13 countries that joined the European Union in 2004 (Cyprus, Czechia, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia), in 2007 (Bulgaria and Romania) or in 2013 (Croatia); and "EU-27" is the same set of countries minus the United Kingdom following its exit from the European Union in 2021.

[3]When Greece joined the European Union in 1981, it became the poorest country among existing member states, but its population comprised less than 5 percent of EU residents. In 1986, Spain replaced Italy at the 5th percentile position, before that spot was taken over by Greece in 1990. From 2004 onwards, several Eastern European countries (Poland, Bulgaria, and Romania) held the 5th percentile spot. The 95th percentile position was usually held by Germany or the Netherlands, with brief interruptions by Austria, Ireland, Sweden, and Denmark.

Figure 1
Income Dispersion among Countries in the Common European Labor Market



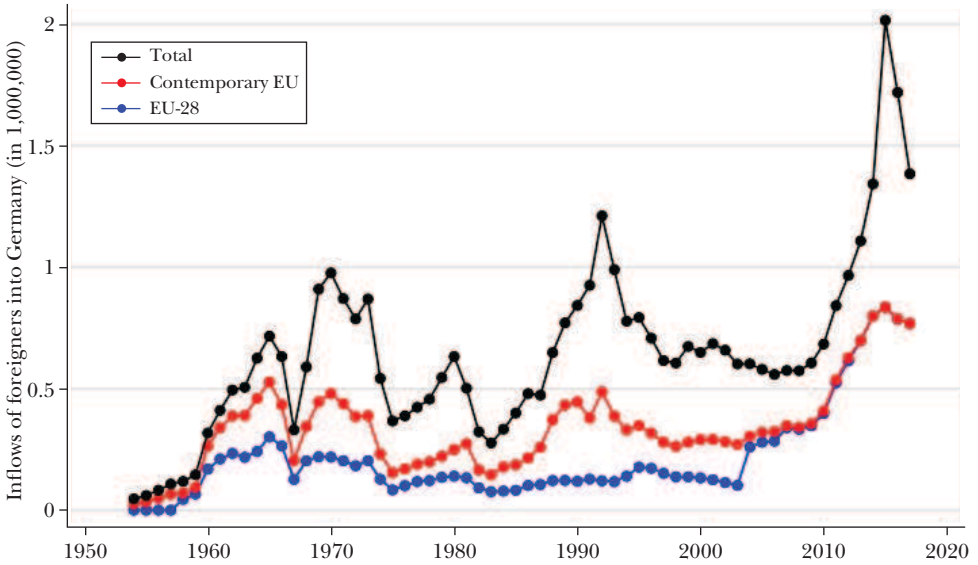
Source: Author's calculation based on data from Bolt and van Zanden (2020).
Note: The figure shows the distribution of real GDP per capita across countries that in a given year were part of the common European labor market through membership in what was the European Economic Community and has evolved into the European Economic Area. Diamonds indicate the median value of the population-weighted distribution, while whiskers indicate the range between the 5th and 95th percentile. Vertical lines mark years in which new countries joined the European Union.

member states, led by Germany and Austria who are in close proximity to the new Eastern European entrant countries, initially imposed rules that restricted the access of workers from new members states to their labor markets for a transitional period of up to seven years (Fihel et al. 2015). Only the United Kingdom, Ireland, and Sweden immediately opened up their labor markets in 2004, and these countries received large inflows of Eastern European citizens as a consequence.

Patterns of Migration

To document the extent of migration within Europe over longer time periods, we first look at Germany, the largest and wealthiest of the six EEC countries. We then take a closer look at migration patterns all over Europe since the year 2000

Figure 2
Annual Inflows of Foreign Citizens into Germany



Source: International Migration Institute (2015), Statistisches Bundesamt (2020a)
Note: "Contemporary EU" indicates inflows of foreign nationals who were citizens of a country that was a member of the EEC/EU in the indicated year. "EU-28" indicates inflows of foreigners who were citizens of one of the 28 countries that eventually joined the European Union.

when within-EU migration flows started to surge. Finally we show that since 2000, within-EU migration has become increasingly high-skilled.

Immigration into Germany since the 1960s

Figure 2 depicts the annual inflow of immigrants into Germany since the mid-1950s. It indicates that sizable immigration commenced in the early 1960s, when "guest workers" were attracted to fill labor shortages in the booming "*Wirtschaftswunder*" economy. During the 1960s and early 1970s, Germany was the leading destination of migrants from within the European Economic Community, while Italy was the most important origin country of these within-EEC migrants (Straubhaar 1988). However, many immigrants to Germany during the 1960s and 1970s originated from countries that were yet to join the EEC, such as Spain. From the 1970s onwards, a large fraction of immigrants also came from countries that never became part of the European labor market, such as Turkey. Immigration within the European Economic Area increased rapidly only after 2011, when the citizens of the Eastern European countries that had joined the European Union in 2004 gained full access to the German labor market following the expiry of the seven-year

transitional arrangements. In 2015, a continuously high inflow of migrants from Eastern Europe and a wave of refugees, primarily from Syria, led to a record immigration of two million individuals in a single year.[4]

Migration to and within Europe since the 2000s

The fact that inter-European migration increased strongly in recent years, as shown for the German case in Figure 2, motivates us to take a closer look at the last two decades. Column 1 of Table 1 reports the fraction of foreign nationals in the 2019 population of each country in the European Economic Area (except Liechtenstein), with countries listed in descending order of their 2015 GDP per capita. The second and third columns separate this total into the proportion of EU-27 and non-EU-27 foreigners in a country. The fourth column indicates the number of a country's citizens that reside in another EEA country, expressed as a percentage of the source country's domestic population.[5]

The table illustrates that immigrant stocks are positively correlated with countries' income levels: for example, the share of foreign nationals in the domestic population is largest in Luxembourg (47.5 percent) and Switzerland (25.1 percent), which are among the countries with highest incomes per capita worldwide. Many of the poorer Eastern European members have small foreigner shares in their populations, such as 0.6 percent in Romania and 0.8 percent in Poland. The contrast becomes stronger still if one focuses only on foreigners with EU citizenship in column 2 of Table 1. The destinations of international migrants within the EEA are almost entirely the higher-income countries of Western Europe. Instead, most of the foreign citizens living in the eastern countries of the European Economic Area come from non-EU nations, such as Russians residing in Estonia or Bosnians in Slovenia.

The patterns for emigrants, shown in column 4 of Table 1, are opposite to those for immigrants. Emigrants from Eastern Europe account for a large portion of citizens living in a different EEA country. Most strikingly, roughly one of every five Romanian citizens in the European Economic Area—a total of 3.6 million individuals—is living outside of Romania. Some of the southern member states, like Portugal or Greece, also have large diasporas elsewhere in Europe. By contrast, wealthier countries of Western Europe, like Germany or the United Kingdom, have relatively few of their citizens living abroad, at least compared to the much larger number of EEA and non-EEA foreigners that these countries host.

[4] Historically consistent time series for migration inflows are available for Germany and the Netherlands, but not for the other two largest founding members of the European Economic Community: France and Italy. Online Appendix Figure A1 shows time-series data on immigration to the Netherlands, which are similar to those for immigration to Germany.

[5] There are more comprehensive European migration statistics based on individuals' nationality rather than their country of birth. In 2018, 86 percent of the foreign nationals residing in EU-15/EFTA countries were born abroad. That fraction is lower in most Eastern member states, and as low as 49 percent in Bulgaria and Lithuania (Eurostat 2020). Data on a country's emigrants is available only for those who reside in European Economic Area countries, but not for those who moved to a non-EU country.

Table 1

Foreign Citizens Residing in EEA Countries in 2019 and Change in Foreign Citizens Residing in EEA Countries, 2004 to 2019

	Foreign citizens living in a country, in percent of country's population, 2019			*Country's citizens living in other EU country, in percent of country's population, 2019*	*Change %pts of foreign citizens living in a country, 2004–2019*	
	All foreign nationalities	*EU nationalities*	*non-EU nationalities*		*EU nationalities*	*non-EU nationalities*
	(1)	(2)	(3)	(4)	(5)	(6)
I. Countries with per capita income above EU average						
Luxembourg	47.5	40.1	7.4	5.5	5.8	1.9
Switzerland	25.1	16.5	8.6	1.1	4.8	–0.1
Ireland	12.5	9.2	3.3	8.4	1.0	–0.1
Norway	11.0	6.8	4.2	1.6	4.3	1.5
Iceland	12.4	10.5	1.9	7.4	4.9	0.1
Denmark	9.1	3.9	5.2	2.4	2.6	1.4
Netherlands	6.4	3.3	3.1	3.4	1.9	0.2
Sweden	9.1	3.1	6.0	2.0	0.8	3.0
Austria	16.2	8.2	8.0	3.0	5.7	1.3
Finland	4.7	1.8	2.9	2.5	1.1	1.5
Germany	12.2	5.3	6.9	1.5	2.3	1.0
Belgium	12.3	8.0	4.3	2.5	2.3	1.7
United Kingdom	9.3	5.5	3.8	1.4	3.5	0.6
France	7.3	2.4	4.9	1.4	0.4	1.1
Italy	8.7	2.6	6.1	3.4	2.0	3.3
Malta	16.9	9.2	7.7	2.5	6.8	6.0
Spain	10.3	4.2	6.1	1.7	2.1	1.4
II. Countries with per capita income below EU average						
Cyprus	17.8	13.4	4.3	3.9	6.2	0.1
Slovenia	6.6	1.0	5.6	3.6	0.9	3.5
Estonia	15.1	1.6	13.5	7.0	1.1	–3.6
Czechia	5.2	2.2	3.1	1.6	1.5	1.8
Portugal	4.7	1.5	3.1	14.3	0.6	–0.1
Lithuania	1.7	0.3	1.4	15.8	0.2	0.5
Slovakia	1.4	1.1	0.3	6.7	0.8	0.0
Greece	7.8	2.0	5.8	4.8	0.6	–0.8
Latvia	13.9	0.3	13.6	10.9	0.1	–8.5
Hungary	1.8	0.8	1.1	4.8	0.0	0.5
Poland	0.8	0.1	0.7	6.9	0.0	0.6
Croatia	1.7	0.4	1.2	13.6	0.2	0.7
Romania	0.6	0.3	0.3	18.4	0.2	0.0
Bulgaria	1.4	0.1	1.3	12.7	0.0	0.9

Source: Eurostat (2020c, 2020d, 2020e).

Note: Countries are listed in declining order of GDP per capita in 2019. The stock of foreign nationals living in a country (separately reported for EU-27 and non-EU-27 citizens) and the stock of a country's own citizens living elsewhere in the European Union are each reported as percentages of a country's current domestic population. For some countries, data on foreign citizens in the domestic population is unavailable for 2004, and data from the next available year is used instead.

The final two columns of Table 1 indicate the change in a country's immigrant share between 2004 and 2019, again differentiated by EU and non-EU citizens. It shows that immigrant shares increased in all but two countries, with several countries experiencing a growth of their foreign population share by 5 percentage points or more. The only exceptions are Latvia and Estonia, which saw many Russian nationals gain citizenship or returning to their home country. It is noteworthy that immigration from other EU countries was the main contributor to growing foreigner shares in most countries, especially those in Western Europe. Most of the European Union's Eastern member states only experienced modest increases in foreign population shares, which were often due to immigrants from outside the European Union, such as Ukrainians moving to Poland. Overall, the patterns of Table 1 clearly suggest intra-European labor flows from poorer to richer European countries, and especially from east to west.

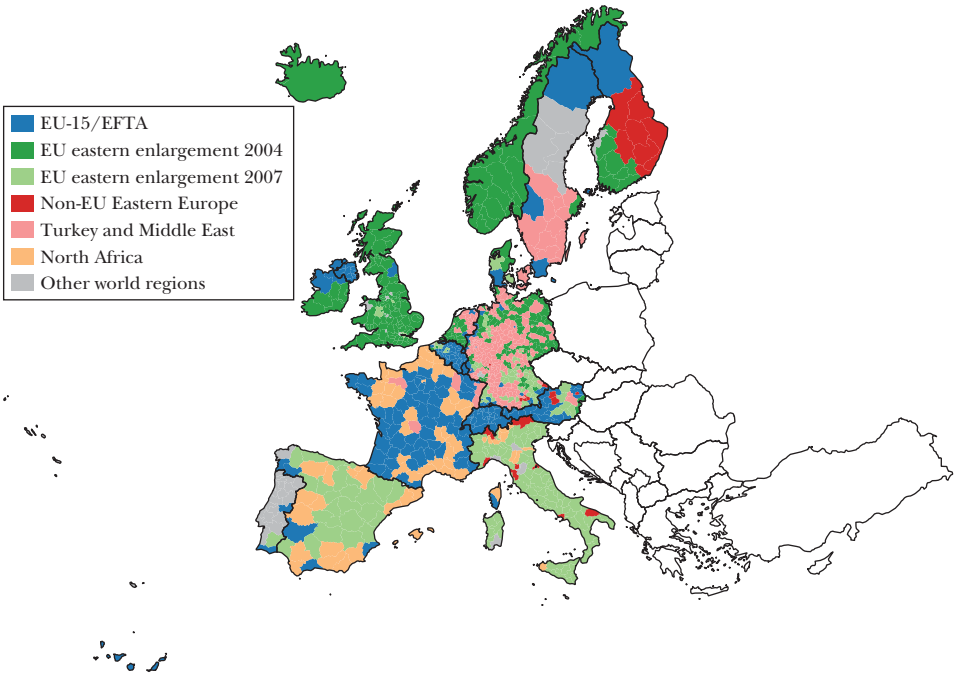
We further investigate the regional patterns of immigrants' location choices in the Western European countries that are the main recipients of immigration in Europe. Figure 3 plots the nationality of the main foreigner group in a geographic region in the years 2018–19 based on data that we collected from individual countries. Our data set comprises 1,095 "NUTS-3" regions, as defined by the European Union.[6] There are 53 different nationalities that form the predominant group of foreigners in at least one of these 1,095 regions. Figure 3 does not try to display all of these nationalities separately, but indicates to which of seven different country groups the main foreign nationality belongs.

The blue areas of Figure 3 show that within many regions of Austria, Switzerland, France, Belgium and Luxembourg, the predominant foreigner group comes from an EU-15 or EFTA country, most often Portugal, Germany, Italy, or France. Out of the 15 countries that were part of the European Union prior to its eastern enlargement, *each* one accounts for the main group of foreigners in at least one region of another country.

If one looks at the blue, dark green, and light green areas, it is clear that in a majority of regions, the largest group of foreign nationals comes from another country within the European Economic Area. The dark green areas show that for a strikingly large number of regions, the main foreigner group hails from one of the countries that joined the European Union since 2004. Polish nationals form the largest immigrant group in most of the British Isles, and in parts of Scandinavia, Germany, and the Netherlands. In many regions of Italy and Spain, as well as in some areas of Austria and Southern Germany, the largest foreign groups instead are the citizens of Romania, which joined the European Union in 2007 and became the second most populous Eastern member state behind Poland.

[6]NUTS is an acronym for Nomenclature des Unités Territoriales Statistiques (Nomenclature of Territorial Units for Statistics), which is a hierarchical system of geographic regions that Eurostat uses for statistical purposes. The NUTS-3 units are defined as "small regions" that usually comprise populations between 150,000 and 800,000 individuals.

Figure 3
Origin Regions of Largest Foreign Nationality by NUTS-3 Geographic Region



Source: All data is sourced from individual countries' statistical offices: Centraal Bureau vor de Statistiek (Netherlands) (2020a), Central Statistics Office (Ireland) (2017b), Danmarks Statistik (Denmark) (2020), Fundação Francisco Manuel dos Santos (Portugal) (2020), Hagstofa Islands (Iceland) (2020), Insituto Nacional de Estadística (Spain) (2020), Institut national de la statistique et des études économiques (France) (2020), Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg (2020), Istituto Nazionale di Statistica (Italy) (2020), Office for National Statistics (United Kingdom) (2018a), Secrétariat d'etat aux migrations (Switzerland) (2020), Statbel (Belgium) (2020), Statistisches Bundesamt (Germany) (2020b), Statistik Austria (2020), Statistisk Sentralbyra (Norway) (2020), Statistiska Centralbyran (Sweden) (2020a), Tilastokeskus (Finland) (2020). © EuroGeographics for map with administrative boundaries.
Notes: The figure indicates the source region of the largest foreign nationality residing in each of 1,095 NUTS-3 regions of Western Europe, or in more aggregate NUTS-1 regions for Scotland and Northern Ireland. Population counts by nationality are measured on December 31, 2018, or January 1, 2019, if available, or at the latest available date otherwise.

Finally, the red, pink, orange, and gray areas on Figure 3 show regions where the main foreign nationality comes from a non-EEA country. In many regions of Germany, the Netherlands and southern Sweden, the dominant foreigner groups are Turkish or Syrian nationals, where the latter group includes many recently arrived refugees. Immigrants from North Africa, especially from Morocco and Algeria, form sizable communities in the Mediterranean countries Spain and France and to a lesser extent in Italy. Other source countries of immigrants that play a dominant role in a few regions include Brazilians in Portugal, Russians in Finland, Albanians in Italy, and Indians and Pakistanis in the United Kingdom.

What explains the location choices of different foreign nationalities that move to Western Europe? We investigated the choice of destination countries for the nine immigrant nationalities whose numbers in Western Europe grew the most between 2001 and 2018: Romania, Morocco, Syria, Poland, China, Bulgaria, Ukraine, Albania, and Russia. The nine panels of online Appendix Figure A2, available with this article at the *JEP* website, plot separately for each of these nationalities their initial percentage in the population of Western European countries in 2001, and the net inflow into these countries between 2001 and 2018.

For most immigrant nationalities, the initial stock and subsequent inflow to a destination country are positively correlated, which implies that immigrants tend to locate in countries that already host a sizable diaspora of the same nationality. This is the case, in particular, for non-European immigrants: Syrians moved primarily to Sweden and Germany, which already hosted relatively large proportions of Syrians in 2001, while Belgium remained a popular destination for immigrants from Morocco, and Italy for immigrants from China.[7]

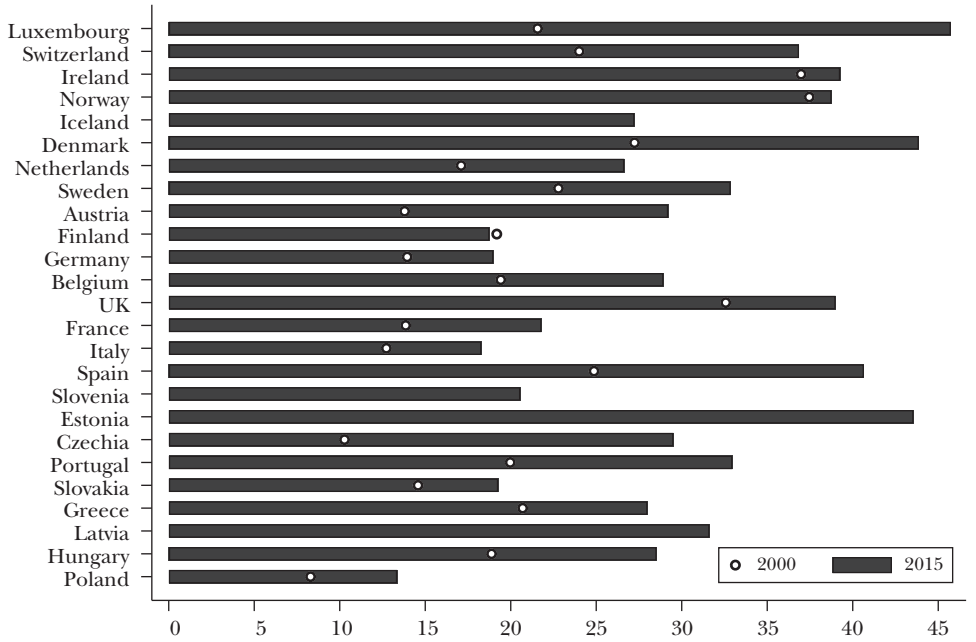
Geographic distance also plays an apparent role in migrants' destination choices. For three of the nine main migrant nationalities, the net inflow from 2001 to 2018 was largest in the geographically closest Western European country, with Moroccans moving to Spain, Albanians moving to Italy, and Russians moving to Finland. Language distance arguably had a less important influence, because none of the nine sending countries shares a national language with a Western European country. However, Romanians did often move to Italy and Spain, whose languages are related to Romanian.

A particularly interesting pattern of migration is that for citizens of Poland, which is the largest Eastern European country that joined the European Union. In 2001, the share of Polish nationals was largest in Germany and Austria, the two Western European countries that are geographically closest to Poland. When Poland and other eastern European countries joined the European Union in 2004, Germany and Austria imposed transitional arrangements that deferred the opening of their labor markets to the new Eastern EU members to 2011. The only countries that immediately opened their labor markets to Eastern Europeans in 2004 were the United Kingdom, Ireland, and Sweden, while several other countries including Norway opened their markets in 2006. As a consequence of this staggered access to Western European labor markets, the largest net inflows of Polish immigrants relative to domestic population occurred in three countries that hosted few Polish nationals in 2001 but opened their markets early: Ireland, Norway, and the United Kingdom. Perhaps guided by that experience, these three countries no longer immediately allowed unrestricted immigration when Romania and Bulgaria joined

[7] An extreme counterexample to this pattern is the location choice of Ukrainians, whose net inflow was largest in Portugal, which was the country with lowest population share of that nationality in 2001. The number of Ukrainian citizens registered in Portugal grew from 71 individuals in 1996 to 62,448 individuals in 2002 (Fonseca and Pereira 2016). Most of these migrants benefited from a 2001 immigration law, which allowed individuals who had arrived with a tourist visa to gain a work permit after presenting an employment contract to authorities.

Figure 4

Share of Tertiary-Educated Individuals among Foreign Residents in 2000 and 2015



Source: Eurostat (2020c, 2020f), OECD (2020).

Note: Countries are listed in declining order of GDP per capita in 2015. All data refers to citizens of European OECD member countries who live in another European OECD member country and for whom education is known. Estonia, Iceland, Latvia, and Slovenia are included only in 2015 but not in 2000. Due to data availability, the initial share of foreigners with tertiary education is measured in 2005 instead of 2000 for Germany.

the European Union in 2007, but instead opened their markets to Romanians and Bulgarians only five to seven years later.

Migration by Educational Attainment

Much of the earlier migration from poorer to richer European countries, such as the flow of southern European guest workers to Germany in the 1960s and 1970s, involved unskilled workers who provided cheap labor in construction, factory jobs, or low-paid service occupations. However, globalization and technical change have raised the relative demand for high-skilled workers, particularly in countries with a comparative advantage in skill-intensive goods. As a consequence, worldwide migration to high-income countries has become more skill-biased in recent decades (Kerr et al. 2016).

Figure 4 shows the share of individuals with tertiary education in a country's foreign resident population both for the years 2000 and 2015. During this period, average education levels of immigrants increased in all countries but Finland, and

the increases were often large. Denmark, Luxembourg, Spain, and Switzerland all experienced a growth of the high-skill share among their foreign population by more than 12 percentage points. While the trends toward more highly educated immigrant populations is pervasive across countries, there remains large variation in the education levels of immigrants in different countries. For example, Spain (41 percent tertiary education share among immigrants) and the United Kingdom (39 percent) have relatively highly educated populations of foreigners, while Germany (19 percent), France (22 percent), and Italy (22 percent) have more low-skilled foreigner populations.

Although immigrant education levels have increased, immigrants remain less educated than natives in most European countries. In 2019, the tertiary education share in the EU-27 countries was 30 percent for foreign-born immigrants, but 35 percent for natives (Eurostat 2020g). Conversely, the share of individuals with at most a lower secondary education was considerably larger among the migrants (33 percent) than among the natives (17 percent).

A further differentiation of immigrants by source countries indicates that migrants within the European Economic Area possess slightly lower average education levels than natives, but higher education levels than immigrants from outside the EEA (Eurostat 2020g). Drawing on data from the 2007–2009 European Labor Force Survey, Dustmann and Frattini (2011) further report that individuals who moved between western EU countries had higher average educational attainment than the natives, while migrants who moved from the eastern to the western EU countries had lower education levels.

The data of Figure 4, which lists countries in declining order of their GDP per capita, suggest a weak positive correlation between a country's high-skill immigrant share and its income level. Moreover, countries that had higher income levels in 2000 also experienced a slightly larger growth in the high-skill immigrant share from 2000 to 2015. We thus find that migration not only flows from poorer to richer countries, but richer countries also tend to attract more skilled immigrants.

Equilibration of Labor Market Outcomes

The common European labor market can contribute to an equilibration of labor market outcomes across European countries. In theory, a complete removal of all mobility barriers should lead to factor price equalization. When production factors can be relocated without costs, the operation of market forces will attract workers to locations paying high wages and will induce firms to invest in locations where labor costs are low. In practice, however, markets are far from perfect. A broad set of mobility costs and frictions create substantial inertia. We discuss further below that even with open borders between European countries, obstacles to migration continue to exist due to different languages, heterogeneity in education, training and social security systems, as well as anti-immigrant attitudes of the native population and discrimination against immigrants. Given the presence of mobility

frictions, differences across countries in such dimensions as the skill composition of the labor force, industry composition, infrastructure, or institutional environment will continue to determine cross-country wage differences while making wage- and income-convergence a slow and long-lasting process; moreover, permanent differences in amenities offered by countries to workers and firms may inhibit full wage convergence.

Nonetheless, there is little doubt that the European integration process has substantially reduced mobility frictions, notably by giving foreign citizens within the European Economic Area the same legal access to a country's labor market that domestic citizens have. Head and Mayer (in this symposium) estimate that mobility costs within Europe fell rapidly in the 1960s, while reductions in these costs were more modest during the past two decades. Indeed, more than one-half of the EEA's current population live in the six founding members of the EEC for whom border-free mobility already became possible in the 1960s, and more than three-quarters live in countries that were part of the common labor market by the mid-1990s. Much of the removal of mobility barriers in Europe thus already occurred several decades ago.

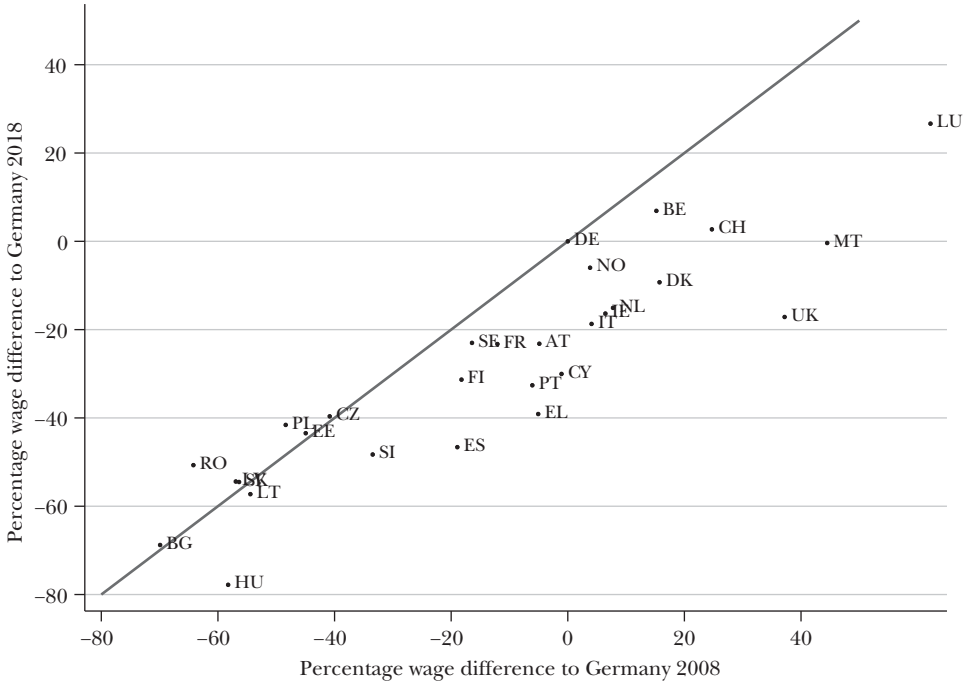
Recent Wage Convergence in the European Labor Market

We discuss below the wage convergence across European countries between 2008 and 2018. Arguably the most important removal of mobility frictions during this period concerned the opening of the labor markets of the wealthier Western European countries to the citizens of the poorer Eastern European countries that have joined the European Economic Area since 2004. Therefore, one would, in particular, expect to see wage convergence between the Eastern and Western European countries.

Of course, forces other than migration will also affect convergence in European wage and income levels. There was arguably a large potential for catch-up growth in the Eastern European countries following their transition from communism to capitalism 30 years ago that would have led to some convergence even absent the common labor market. Moreover, by joining the European Union, the Eastern member states also gained access to the free movement of goods, capital, and services, and support through the European Union's spatial cohesion policy. That policy seeks to reduce economic disparities between countries and regions within the European Union. From 2014 to 2020, the European Union allocated about €645 billion, or one-third of its overall budget, to instruments such as subsidized infrastructure projects that support that cohesion policy (as discussed in this journal by Von Ehrlich and Overman 2020).

Yet despite these forces in favor of convergence, economic differences between the EU member countries remain remarkably large. In 2019, average labor costs in the European Union ranged from €6/hour in Bulgaria to €45/hour in Denmark (Eurostat 2020h). Although Denmark has the highest and Bulgaria has the lowest price level in the European Union, real wages still differ by a factor of 2.8 between the two countries (Eurostat 2020i).

Figure 5
Convergence in Real Wages across Countries



Source: SILC data and price level data from Eurostat (2020j, 2020k).
Note: The figure indicates coefficient estimates for country fixed effects from year-specific regressions that relate individuals' log annual real wage to country fixed effects and controls for a quartic in age, sex, marital status, and highest education degree obtained. Country fixed effect estimates have been converted from log points to percentage points. Germany is the reference country for the country fixed effects. All wages are converted to Euros and adjusted for price level differences across countries. For details of the regression, see the online Appendix available with this article at the *JEP* website.

Here, we draw on microdata from EU-SILC (Statistics on Income and Living Conditions) to study convergence in real wages and in wages adjusted for skill levels. Our sample includes 253,894 workers in 2008 and 262,255 workers in 2018, who reside in 30 European countries. We regress, separately for each year, individuals' real log gross annual earnings on country fixed effects, and a set of control variables that includes a quartic in age and indicators for sex, marital status, and highest educational degree obtained. Germany is the reference country; hence, the coefficients for country fixed effects indicate countries' wage premia relative to Germany in the year under consideration.

Figure 5 plots coefficient estimates for the 2018 country fixed effects against those for the 2008 fixed effects, where we converted these effects from a log point to a percentage point scale. The graph also includes a 45-degree line. The evidence

shows that there was convergence in real wage levels. Consider the case of Romania ("RO") towards the bottom left corner of the figure. In 2008, the average Romanian worker earned 64 percent less than the average worker in Germany. However, that gap had shrunk to 51 percent ten years later. Indeed, for all Eastern European members of the EEA, except Hungary, Latvia, and Slovenia, the country indicators lie above the 45-degree line, as shown in the lower-left portion of the figure. These countries reduced their wage penalty relative to Germany. By contrast, the indicators for all Western European countries lie below the 45-degree line, as shown in the center and upper-right portion of the figure. Wage levels in these countries lost ground relative to Germany from 2008 to 2018.

A linear regression fit through the point cloud (not shown in the figure) would have a slope of 0.64. The slope of less than one implies that national wage levels had a greater dispersion in 2008 than in 2018: a wage difference which existed between any pair of countries in 2008 would be predicted to have shrunk by one-third by 2018.[8]

These wage estimates are broadly in line with recent evidence on convergence in GDP per capita across European countries and regions. Montfort (2020) finds convergence in per capita incomes between 2000 and 2008, which has slowed down substantially thereafter. Since 2008, overall convergence within the EU-28 has been weak, with countries of Eastern Europe slowly catching up, while there was some divergence within the EU-15. In sum, large income differences remain.

Static Earnings Gains from Migration

The persistent and large earnings differences across European countries suggest that migration within Europe is associated with high earnings gains for migrants. To shed light on the order of magnitude of these gains, we undertake a simple accounting exercise. First, we calculate the difference in earnings levels between origin country i and destination country j, $(w_j - w_i)$ for the year 2018, based on a regression of log real yearly earnings on worker characteristics and country fixed effects as in the analysis for Figure 5 above. Abstracting from the effects of immigrant selectivity (Borjas 1987) and immigrant assimilation (Chiswick 1978)—that is, the fact that immigrants typically face an earnings penalty initially and catch up only later on—differences in country fixed effects can serve as a measure for the earnings gain of a migrant moving from country i to country j.

[8] Details of the regression underlying Figure 5 and additional results are available in the online Appendix available with this article at the *JEP* website. In Appendix Figure A3, we repeat the same analysis based on an augmented cross-country wage regression that additionally controls for various characteristics of workers' jobs: weekly work hours, detailed occupation, and industry of employment. That setup seeks to isolate differences in countries' wage levels that cannot readily be explained by international differences in job types. Cross-country convergence is slightly weaker when we add these controls: a regression line through the point cloud of country fixed effect estimates has a slope of 0.68 rather than 0.64. Note that the estimated slope will be biased towards zero if countries' wage differences relative to Germany are measured with error. Therefore, one might interpret the slope estimate as lower bound for its actual value.

Second, we calculate the earnings gains from immigration for each origin-destination pair (i,j) as the product $M(i,j) \cdot (w_j - w_i)$, where $M(i,j)$ is the stock of migrants in destination j originating from country i.[9] These earnings gains are static in the sense that they take wage levels as given, and abstract from any impact of migration on wages in the origin or destination countries.

Based on this calculation, we estimate that 12.7 million intra-EU migrant workers obtain an average earnings gain of about €6,500 per year each (all numbers adjusted by purchasing power parity throughout). The product of these numbers yields an aggregate static earnings gain from within-EU migration of €83.2 billion, or 0.5 percent of EU-wide GDP. The bulk of this benefit, €67.9 billion, accrues to migrants from Eastern Europe, whose earnings gains amount to 2.8 percent of eastern EU countries' GDP. For Bulgaria, which is the poorest member country of the European Union, the static migration gain is largest at 8.0 percent of GDP.

This basic calculation assumes that the gain from migrating from country to country is the same for all workers of a given broad education group. In reality, the potential gains from migration may, however, vary across workers, and it is plausible that those who stand to gain more will be more likely to migrate. By not taking into account this selection effect, one will tend to underestimate the gains from migration. In particular, while our simple calculation implies an earnings loss for every worker who moves from a richer to a poorer country, it is possible that at least some of these workers in reality earn more in the low-wage host-country than in their high-wage home-country. If we only take into account migration flows from poorer to richer countries, the EU-wide gains from migration are indeed larger, amounting to €97.4 billion or 0.6 percent of EU GDP. For eastern EU countries, the gains from migration are, unsurprisingly, barely affected, because almost all migrants from Eastern Europe move to a richer EU country.

Another potential source of bias in our baseline calculation stems from the fact that foreign citizens often obtain lower wages in a destination country than domestic citizens. By ignoring that pattern, one will tend to overestimate the earnings gains from migration. Indeed, when we account for such wage penalties by calculating separate wage levels in a country for domestic and foreign citizens, then the gains from migration are substantially smaller. They amount to 0.2 percent of EU GDP for EU-wide migration, to 1.7 percent of GDP for the member states in Eastern Europe, and to 5.7 percent of GDP for the poorest country, Bulgaria.

Clemens (2011) in this journal reviews a broader literature on the potential gains from reducing worldwide barriers to labor mobility. While a complete removal of such barriers could generate gains of more than 100 percent of worldwide GDP

[9] We calculate country-specific wage premia and earnings gains separately for migrants with and without tertiary education. The gains are adjusted by purchasing power parity exchange rates. Online Appendix Figure A4 shows that in many countries, wage differences relative to Germany are larger for highly educated workers than for less educated ones. Our calculation also takes into account that earnings gains from migration accrue not to all migrants, but only to working-age individuals who are employed. The online Appendix provides further detail on this computation of gains from migration.

according to some estimates, the realization of such gains would require that more than half of the world population moves to another country. With partial reductions of mobility barriers that lead to a migration of about 1–2 percent of the world population, world GDP could still grow by about 1–2 percent. In comparing such calculations to migration gains for Europe, it is important to note that income differentials within Europe are much smaller than worldwide, which leads to smaller potential gains from migration.

Indeed, our simple quantification of migration gains can be used to highlight how gains from migration depend on both migration rates and earnings differences between countries. Consider first the case of Bulgaria. The number of Bulgarian workers in other EU countries corresponds to about 8 percent of Bulgaria's population, and the average migration gain per Bulgarian worker is about equal to the country's per-capita GDP. As a consequence, we obtain a migration gain of 8 percent of GDP for Bulgaria in our baseline calculation. When we look instead at the entire European Union, both the fraction of migrant workers (about 2.5 percent) and the average gain per worker (about 20 percent of per-capita EU GDP) are substantially lower than in the Bulgarian case, and in combination result in the much smaller migration benefit of 0.5 percent of EU GDP.

Earnings Effects of Immigration on Host-Country Wages

The simple accounting exercise above calculated earnings gains from within-EU migration based on the assumption that wages in the involved countries are not themselves affected by immigration. This is a strong assumption, but perhaps somewhat less unreasonable given the large and highly persistent cross-country variation in real wages across European countries.

One possible explanation for that persistence in wage differentials is that the labor flows within the common European labor market are not large enough to create a stronger convergence in wage levels. Another possible explanation is that labor markets adjust to immigration primarily through an adjustment of employment, rather than an adjustment of wages. For example, Glitz (2012) looks at the large immigration flow into Germany of 2.8 million ethnic Germans from Eastern Europe and the former Soviet Union during the 1990s and early 2000s. He finds no effect on wages, but a large employment effect: for every ten immigrants who find a job, three native workers become unemployed. A related study by Dustmann, Schönberg, and Stuhler (2017) analyzes a local labor supply shock in a German border region when workers from nearby Czechia were allowed to enter the country. It finds a moderate decline in the German wage but a large negative response in local native employment.

The intuitive conjecture that migration should equilibrate wages and employment rates rests on the implicit assumptions that labor is homogeneous and that labor demand is constant. But if labor is heterogeneous and there is little substitutability between immigrant and native workers, then a migrant inflow will generate little downward pressure for the wages of natives. Conversely, immigrants may contribute to firm growth by filling important labor shortages or by contributing

to innovation, in which case, immigration may trigger an increase in labor demand that raises the native wage level.

With these ideas in mind, certain areas of Switzerland offer an interesting case study for the effects of European labor market integration. The Swiss had rejected membership in the European Economic Area in a 1992 referendum, and only became part of the common European labor market in 2005 after a set of bilateral agreements with the European Union. From 2000 to 2019, immigration increased the share of foreigners in the Swiss workforce by more than 8 percentage points. This surge in immigrant workers included many workers who reside in neighboring regions of Italy, France, and Germany, and who commute daily to Switzerland in order to take advantage of the elevated Swiss wages. The number of workers employed in Switzerland but residing in a neighboring country almost tripled since 2000 and now accounts for an astonishing 6.5 percent of the Swiss labor force.

Cross-border work in Switzerland is particularly important in the cantons of Geneva near the French border and Ticino near the Italian border, where cross-border workers account for 26 and 29 percent of all workers in those cantons, respectively. In these cases, frictions to cross-border labor mobility seem very limited. In particular, there are no restrictions arising from language differences (Geneva is a French-speaking canton; Ticino is an Italian-speaking canton), and cross-border transportation systems are well developed. Several recent studies explore how the increase in cross-border work affected the local labor markets of both Switzerland, where labor supply increased dramatically, as well as the border regions of France and Italy, which lost many workers to Switzerland.

Beerli et al. (2021) find that the increase in cross-border workers in the most strongly exposed border regions of Switzerland left wages and employment of native Swiss workers largely unchanged. Indeed, wages of university-educated natives even increased. It appears that migration allowed highly productive and skill-intensive firms to close their labor shortages. Conversely, the French and Italian border regions lost a sizeable fraction of their employees to Swiss firms. For the French border regions, Hafner (2021) finds that the wages of low-skilled workers were slightly rising, while wages of high-skilled workers remained unaffected. Dicarlo (2020) shows that Italian firms in the border region faced substantial labor shortages after large numbers of Italian workers took up jobs in nearby Switzerland. In particular, Italian firms in high-skill sectors in the border region struggled to compensate for this loss in labor supply. Nevertheless, wages in these firms declined, most likely because the most productive workers went to Switzerland.

Taken together, these papers suggest that labor market integration between Switzerland and its neighbors did not decrease—and perhaps even increased—the wage differences across national borders. Various studies have also found positive wage effects of immigrants on natives in other European countries. For instance, Dustmann, Frattini, and Preston (2013) find that, on average, immigration in the UK slightly increased the average wage of native workers, though wages responded

differentially along the wage distribution (some wage declines below the twentieth percentile of the wage distribution but modest wage gains in the upper ranks of the distribution). Ortega and Verdugo (2014) show that immigration into France raised the wage of French workers by fostering a reallocation of the native workers to better-paying occupations.

The general message from all these studies is that migration flows may have surprisingly weak effects on wages. Despite increasing migration flows within Europe, an equilibration of wage levels across countries does not seem near.

Obstacles to Migration and European Labor Market Integration

The labor market of the European Economic Area remains considerably less integrated than the US labor market and has much lower migration rates. A proximate reason for these relatively modest migration rates in Europe is that labor market outcomes for migrants are often worse than those of similarly educated natives. Some citizens of Europe's poorer countries would likely struggle to obtain adequate jobs if they moved to a richer country, and their financial gain from moving would thus be considerably smaller than suggested by the large international wage differences indicated in Figure 5. Algan et al. (2011) review the labor market performance of immigrants in Europe's three largest economies—Germany, France, and the United Kingdom—and conclude that immigrants do worse than natives in terms of employment rates and earnings, after controlling for education, potential experience and regional location. The immigrant-native gaps appear quite persistent across first- and second-generation immigrants (that is, native-born children of foreign-born parents).

Importantly, immigrants' labor market performance varies widely across immigrant groups. While migrants from other Western European countries have fairly similar outcomes than natives, very large gaps exist for immigrants from outside Europe of different races and ethnicities, such as Africans in France, or Bangladeshis and Pakistanis in the United Kingdom. Eastern Europeans, and in some cases southern Europeans such as Greeks or Italians in Germany, also do worse than the natives. Calmfors and Sánchez Gassen (2019) show that immigrants' employment prospects are substantially below those of natives even in the egalitarian Nordic countries.

Language and Culture

Europe's remarkably large heterogeneity in languages is one reason why immigrants may struggle to gain a foothold in another country's labor market. The European Union alone lists 24 different official languages, and the non-EU members of the common labor market add another three. A lack of proficiency in the destination country's language not only limits immigrants' ability to find jobs quickly but can also reduce productivity in the workplace and social inclusion. A large literature has documented that poor language proficiency has a sizable

negative effect on labor earnings of immigrants (Chiswick and Miller 2014). Other research suggests that language differences between the origin and destination countries constitute a barrier for migration. Adserà and Pytliková (2015) show that in a panel of OECD countries, migration flows are stronger between countries that share the same language. Moreover, English-speaking countries generally receive greater migrant inflows, which is likely due to the widespread teaching of English as a foreign language. In the European Union, 96 percent of all students in upper secondary education learn English as a foreign language, while the fractions of students learning Spanish, French, and German are just 26 percent, 22 percent, and 20 percent, respectively (Eurostat 2020g).

Language can also more broadly proxy for local culture, and migrants across language borders may have to learn not only a new language but also to familiarize themselves with local practices of interpersonal interaction and labor market behavior. Consistent with such an interpretation of language as a proxy for culture, Eugster et al. (2017) show that workers' job search behavior differs notably across nearby German-speaking and French-speaking regions in Switzerland that share the same formal labor market institutions.

Education, Training, and Social Security

Certain institutional features may also hinder the smooth integration of immigrants into host country labor markets. European education and occupational training systems are organized and administered at the national level. Because these systems differ across countries, skilled immigrants often face limitations to enter the occupation in which they were trained at home. In some cases, employers may have difficulty assessing educational credentials that were acquired abroad; in others, occupational licensing rules make it difficult to get formal recognition of occupational certificates acquired abroad.

Tertiary education is one area where standards have been harmonized. The 1999 Bologna declaration was signed by 29 European countries (the EU-28 except Cyprus, plus Norway and Switzerland). In follow-up agreements, the "Bologna process" was opened to other countries, including those of the former Soviet Union, former Yugoslavia, and Turkey, and now includes 48 countries that form the European Higher Education Area. In this agreement, countries coordinated on adopting a system of comparable degrees, similar study cycles (undergraduate/graduate), and a system of portable study credits. Furthermore, there is an agreement to promote international mobility of students and teaching staff and to harmonize the standards and quality of study programs (Huisman et al. 2012). By 2018, 1.3 million students enrolled in tertiary programs across the EU-27 came from abroad, with 44 percent coming from other European countries. Germany, France, Italy, and the Netherlands attracted more than half of these foreign students (Eurostat 2020g).

EU legislation has also sought to standardize and facilitate the process of occupational recognition, yet significant barriers remain. Koumenta et al. (2014) document that access to more than 800 occupations is regulated in at least one EU member state, with these occupations covering up to 24 percent of the EU

labor force. They show that intra-EU migrants are less likely than natives to enter a profession subject to licensing. Further analyses show that occupational recognition has a significant effect on wages. Brücker et al. (2020), studying the impact of occupational recognition in Germany, find that three years after obtaining recognition of their occupational credentials, immigrants earn 20 percent higher wages and are 25 percent more likely to be employed than similar immigrants who never applied for recognition.[10] Obstacles to occupational recognition likely contribute to occupational downgrading, where immigrants work in jobs that are inferior to their previous education and labor market experience (Dustmann, Frattini, and Preston 2013).

An additional mobility barrier concerns the large heterogeneity in social insurance rights across European countries. These rights—including old-age pensions, unemployment payments, and government-financed healthcare services—are determined at the national level, and programs differ strongly across countries. For migrants, it is not always obvious whether rights acquired in one country are transferable to another country. For instance, a worker who moves frequently across countries and works for only short periods in each of them may not satisfy any country's minimum qualifying period that is required to gain access to an old-age pension. "Coordination Regulations" have been established to facilitate the portability of social insurance rights across countries and to prohibit discrimination against immigrants or against return migrants who have since left a country (European Commission 2019).

Discrimination and Anti-immigrant Attitudes

Another explanation for immigrants' relative lack of labor market success is discrimination in the labor market. There is ample evidence from Europe and elsewhere for discrimination against racial and ethnic minorities in the labor market, which is reviewed in recent surveys by Bertrand and Duflo (2017) and Neumark (2018).

In the context of migration within Europe, differences in national origins are not necessarily visible from workers' physiques (used in audit studies of in-person job applicants) or from workers' names (in correspondence studies based on submissions of written job applications). Thus, one recent study that explicitly investigates discrimination by nationality uses data from an online platform of the Swiss public employment service that connects job seekers with recruiters (Hangartner, Kopp, and Siegenthaler 2021). On this platform, recruiters observe not only the names but also the nationalities and language skills of job seekers. Holding constant other observables, job seekers of non-European origin are 13 to 19 percent less likely to be contacted by recruiters than Swiss nationals. For migrants within the common European labor market, penalties are smaller and range from zero for southern Europeans (which include Italians who form the

[10] In a US context, Kleiner and Krueger (2013) estimate that 29 percent of jobs are subject to occupation licensing rules and that licensing is associated with 18 percent higher wages.

largest group of foreigners in Switzerland) to 6 percent, both for immigrants from the northwest and east of the continent. Most of these penalties disappear when immigrants are naturalized, although recruiters may still infer the foreign roots of applicants based on their names and language skills in some cases (Kopp, Siegenthaler, and Hangartner 2020). The nationality of job applicants thus appears to play an important role in labor market discrimination, rather than just the ethnicity. Åslund, Hensvik, and Nordström Skans (2014) additionally show that hiring chances of immigrants in Sweden are significantly lower in firms whose managers are born in Sweden instead of abroad, which suggests that discrimination may result from homophily.

The free migration of labor within Europe is arguably the most politically controversial element of the common European market. Alfano et al. (2016) argue that the United Kingdom's lack of control over immigration from the European Economic Area became the single most important argument in favor of the "Brexit" referendum, which eventually led to the United Kingdom's exit from the common market. However, support for Brexit was highest not in those regions that had received the most immigration in previous years, but in regions that experienced economic decline due to rising international trade competition (Colantone and Stanig 2018).

While it is unclear whether immigration has adverse impacts on the labor market outcomes of natives (Dustmann, Schönberg, and Stuhler 2016), migrants affect natives also by changing the composition of nationalities, languages, and cultures in neighborhoods, workplaces and schools. Card, Dustmann, and Preston (2012) find that concerns related to such compositional amenities are 2–5 times more important than concerns about the labor market in order to explain people's attitudes towards migrants.

Despite the United Kingdom's exit from the common market and the rise of anti-immigrant sentiment in some European countries, attitudes of the general public towards immigration have not become more skeptical during the last two decades in most countries. We compiled data from the 2004 and 2018 European Social Survey, which asked respondents "to what extent do you think your country should allow people of the same race or ethnic group as most of your country's people to come and live here?" The fraction of survey respondents who answered either "allow many" or "allow some" (instead of "allow few" or "allow none") increased in 13 out of 14 Western European countries, from an average of 66 to 77 percent, with declining support for immigration being observed only in Italy. In the six countries of Eastern Europe included in the surveys, support for immigration changed modestly from an average of 59 to 58 percent, with declines in Czechia, Poland, and Slovakia (for details of the survey results, see online Appendix Figure A5).

Inflexible Domestic Labor Markets

While obstacles to labor migration across European countries exist, it is worth pointing out that job-to-job mobility is also quite low *within* many European countries. The same reasons that prevent workers from changing jobs domestically

may also keep them from moving internationally. In particular, southern European countries tend to have strict employment protection regulations that require employers to pay sizable compensations to workers in case of layoffs. Such measures strongly reduce worker mobility across jobs (Martin and Scarpetta 2012). Alesina et al. (2015) also argue that the cultures of southern European countries value close family ties more strongly than cultures in northern European or Anglo-Saxon countries. In a culture with strong family ties, many adults do not want to move far away from their parents and relatives, which limits spatial mobility even if migration would be financially gainful.

Conclusions

We are still far from a common European labor market. In a 2014 survey conducted by the German think tank IZA, among 284 European labor economists, nearly three-quarters *disagreed* with the statement that "the single European labor market is largely achieved" (Krause-Pilatus, Rinne, and Zimmermann 2014). Despite the removal of legal barriers to labor mobility, large differences in labor market outcomes across European countries remain.

Of course, most domestic labor markets—including the US labor market—are segmented into geographic local labor markets where localized shocks can lead to fairly persistent differentials in wage and unemployment levels (Moretti 2011; Autor, Dorn, and Hanson 2021). However, migration rates within the European labor market are much smaller than in the United States, despite larger geographic differentials in labor market outcomes across European regions, and notwithstanding that Europe covers a larger population distributed over a much smaller land area. As noted, some of the remaining obstacles to a more integrated European labor market include heterogeneity of Europe in terms of languages and cultures; national regulations related to education, training, and employment conditions; and discrimination against migrants.

National borders are no longer legal barriers to labor migration, but they remain important for Europeans' self-identification. Four in seven EU citizens (57 percent) feel very attached to their own country, while only one in seven (14 percent) feel very attached to the European Union (European Commission 2018). The United Kingdom's departure from the common market—which was partly driven by concerns about migration—makes clear that further European labor market integration cannot be taken for granted. While there is currently no indication that other countries will soon follow the United Kingdom's path of leaving the European Union, it is also unlikely that the European labor market will substantially grow over the next decade through the accession of new member states. The European Union has opened membership negotiations with five countries, but the negotiations with the largest candidate country (Turkey) have now been frozen for many years, and the other four countries (Albania, Montenegro, North Macedonia, and Serbia) would add less than 3 percent to the population of the European Economic Area. A

further integration of the European labor market may thus more likely result from the European Union's efforts to harmonize or coordinate national regulations in order to reduce obstacles to migration, and from continued migration of workers from Eastern to Western Europe.

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